

	A	B	C	D	E	F	G	H	I	J	K	L								
53																				
54	2,4-Dinitrotoluene																			
55	General Statistics																			
56																				
57	Number of Valid Data			23	Number of Detected Data			0												
58	Number of Distinct Detected Data			0	Number of Non-Detect Data			23												
59					Percent Non-Detects			100.00%												
60																				
61	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!																			
62	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!																			
63	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).																			
64																				
65	The data set for variable 2,4-Dinitrotoluene was not processed!																			
66																				
67																				
68																				
69	2-Methylphenol																			
70																				
71	General Statistics																			
72	Number of Valid Data			23	Number of Detected Data			0												
73	Number of Distinct Detected Data			0	Number of Non-Detect Data			23												
74					Percent Non-Detects			100.00%												
75																				
76	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!																			
77	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!																			
78	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).																			
79																				
80	The data set for variable 2-Methylphenol was not processed!																			
81																				
82																				
83																				
84	3 & 4 Methylphenol																			
85																				
86	General Statistics																			
87	Number of Valid Data			23	Number of Detected Data			0												
88	Number of Distinct Detected Data			0	Number of Non-Detect Data			23												
89					Percent Non-Detects			100.00%												
90																				
91	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!																			
92	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!																			
93	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).																			
94																				
95	The data set for variable 3 & 4 Methylphenol was not processed!																			
96																				
97																				
98																				
99	Acenaphthene																			
100																				
101	General Statistics																			
102	Number of Valid Data			23	Number of Detected Data			1												
103	Number of Distinct Detected Data			1	Number of Non-Detect Data			22												
104					Percent Non-Detects			95.65%												

	A	B	C	D	E	F	G	H	I	J	K	L
209					5% A-D Critical Value	0.746				Kaplan-Meier (KM) Method		
210					K-S Test Statistic	0.746				Mean	15.77	
211					5% K-S Critical Value	0.304				SD	36.85	
212					Data not Gamma Distributed at 5% Significance Level				SE of Mean	8.214		
213									95% KM (t) UCL	29.87		
214					Assuming Gamma Distribution				95% KM (z) UCL	29.28		
215					Gamma ROS Statistics using Extrapolated Data				95% KM (jackknife) UCL	28.49		
216					Minimum	0.000001			95% KM (bootstrap t) UCL	135.1		
217					Maximum	180			95% KM (BCA) UCL	37		
218					Mean	13.03			95% KM (Percentile Bootstrap) UCL	31.24		
219					Median	0.000001			95% KM (Chebyshev) UCL	51.57		
220					SD	38.6			97.5% KM (Chebyshev) UCL	67.06		
221					k star	0.0975			99% KM (Chebyshev) UCL	97.49		
222					Theta star	133.6						
223					Nu star	4.487			Potential UCLs to Use			
224					AppChi2	0.923			95% KM (BCA) UCL	37		
225					95% Gamma Approximate UCL (Use when n >= 40)	63.33						
226					95% Adjusted Gamma UCL (Use when n < 40)	71.75						
227					Note: DL/2 is not a recommended method.							
228												
229					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
230					These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).							
231					For additional insight, the user may want to consult a statistician.							
232												
233												
234					Barium							
235												
236					General Statistics							
237					Number of Valid Observations	23			Number of Distinct Observations	19		
238												
239					Raw Statistics				Log-transformed Statistics			
240					Minimum	10			Minimum of Log Data	2.303		
241					Maximum	160			Maximum of Log Data	5.075		
242					Mean	70.26			Mean of log Data	4.084		
243					Geometric Mean	59.4			SD of log Data	0.647		
244					Median	64						
245					SD	38.79						
246					Std. Error of Mean	8.088						
247					Coefficient of Variation	0.552						
248					Skewness	0.948						
249												
250					Relevant UCL Statistics							
251					Normal Distribution Test				Lognormal Distribution Test			
252					Shapiro Wilk Test Statistic	0.922			Shapiro Wilk Test Statistic	0.924		
253					Shapiro Wilk Critical Value	0.914			Shapiro Wilk Critical Value	0.914		
254					Data appear Normal at 5% Significance Level				Data appear Lognormal at 5% Significance Level			
255												
256					Assuming Normal Distribution				Assuming Lognormal Distribution			
257					95% Student's-t UCL	84.15			95% H-UCL	98.01		
258					95% UCLs (Adjusted for Skewness)				95% Chebyshev (MVUE) UCL	117.8		
259					95% Adjusted-CLT UCL (Chen-1995)	85.27			97.5% Chebyshev (MVUE) UCL	137.4		
260					95% Modified-t UCL (Johnson-1978)	84.42			99% Chebyshev (MVUE) UCL	175.9		

	A	B	C	D	E	F	G	H	I	J	K	L												
261																								
262	Gamma Distribution Test						Data Distribution																	
263	k star (bias corrected)			2.753			Data appear Normal at 5% Significance Level																	
264	Theta Star			25.52																				
265	MLE of Mean			70.26																				
266	MLE of Standard Deviation			42.34																				
267	nu star			126.7																				
268	Approximate Chi Square Value (.05)			101.7			Nonparametric Statistics																	
269	Adjusted Level of Significance			0.0389						95% CLT UCL		83.57												
270	Adjusted Chi Square Value			100						95% Jackknife UCL		84.15												
271										95% Standard Bootstrap UCL		82.91												
272	Anderson-Darling Test Statistic			0.313						95% Bootstrap-t UCL		86.96												
273	Anderson-Darling 5% Critical Value			0.75						95% Hall's Bootstrap UCL		88.04												
274	Kolmogorov-Smirnov Test Statistic			0.106						95% Percentile Bootstrap UCL		83.61												
275	Kolmogorov-Smirnov 5% Critical Value			0.183						95% BCA Bootstrap UCL		84.65												
276	Data appear Gamma Distributed at 5% Significance Level																							
277																								
278	Assuming Gamma Distribution																							
279	95% Approximate Gamma UCL (Use when n >= 40)			87.53																				
280	95% Adjusted Gamma UCL (Use when n < 40)			88.95																				
281																								
282	Potential UCL to Use																							
283																								
284	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.																							
285	These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)																							
286	and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.																							
287																								
288																								
289	Benzene																							
290																								
291	General Statistics																							
292	Number of Valid Data			39			Number of Detected Data			11														
293	Number of Distinct Detected Data			11			Number of Non-Detect Data			28														
294										Percent Non-Detects														
295	71.79%																							
296	Raw Statistics						Log-transformed Statistics																	
297	Minimum Detected			0.54			Minimum Detected			-0.616														
298	Maximum Detected			21			Maximum Detected			3.045														
299	Mean of Detected			4.855			Mean of Detected			0.916														
300	SD of Detected			6.715			SD of Detected			1.139														
301	Minimum Non-Detect			0.34			Minimum Non-Detect			-1.079														
302	Maximum Non-Detect			0.4			Maximum Non-Detect			-0.916														
303																								
304	Note: Data have multiple DLs - Use of KM Method is recommended						Number treated as Non-Detect																	
305	For all methods (except KM, DL/2, and ROS Methods),						Number treated as Detected																	
306	Observations < Largest ND are treated as NDs						Single DL Non-Detect Percentage																	
307	71.79%																							
308	UCL Statistics																							
309	Normal Distribution Test with Detected Values Only						Lognormal Distribution Test with Detected Values Only																	
310	Shapiro Wilk Test Statistic			0.651			Shapiro Wilk Test Statistic			0.929														
311	5% Shapiro Wilk Critical Value			0.85			5% Shapiro Wilk Critical Value			0.85														
312	Data not Normal at 5% Significance Level						Data appear Lognormal at 5% Significance Level																	

	A	B	C	D	E	F	G	H	I	J	K	L
313												
314												
315												
316												
317												
318												
319												
320												
321												
322												
323												
324												
325												
326												
327												
328												
329												
330												
331												
332												
333												
334												
335												
336												
337												
338												
339												
340												
341												
342												
343												
344												
345												
346												
347												
348												
349												
350												
351												
352												
353												
354	Note: DL/2 is not a recommended method.											
355												
356	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
357	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
358	For additional insight, the user may want to consult a statistician.											
359												
360												
361	Benzo(a)anthracene											
362												
363	General Statistics											
364	Number of Valid Data	23					Number of Detected Data	0				

	A	B	C	D	E	F	G	H	I	J	K	L
677	Raw Statistics						Log-transformed Statistics					
678				Minimum Detected		4				Minimum Detected		1.386
679				Maximum Detected		7.1				Maximum Detected		1.96
680				Mean of Detected		5.667				Mean of Detected		1.707
681				SD of Detected		1.563				SD of Detected		0.293
682				Minimum Non-Detect		3				Minimum Non-Detect		1.099
683				Maximum Non-Detect		3				Maximum Non-Detect		1.099
684												
685												
686	Warning: There are only 3 Distinct Detected Values in this data set											
687	The number of detected data may not be adequate enough to perform GOF tests, bootstrap, and ROS methods.											
688	Those methods will return a 'N/A' value on your output display!											
689												
690	It is necessary to have 4 or more Distinct Values for bootstrap methods.											
691	However, results obtained using 4 to 9 distinct values may not be reliable.											
692	It is recommended to have 10 to 15 or more observations for accurate and meaningful results and estimates.											
693												
694												
695	UCL Statistics											
696	Normal Distribution Test with Detected Values Only				Lognormal Distribution Test with Detected Values Only							
697		Shapiro Wilk Test Statistic		0.983			Shapiro Wilk Test Statistic			0.96		
698		5% Shapiro Wilk Critical Value		0.767			5% Shapiro Wilk Critical Value			0.767		
699	Data appear Normal at 5% Significance Level				Data appear Lognormal at 5% Significance Level							
700												
701	Assuming Normal Distribution				Assuming Lognormal Distribution							
702	DL/2 Substitution Method					DL/2 Substitution Method						
703	Mean		2.043				Mean			0.575		
704	SD		1.51				SD			0.457		
705	95% DL/2 (t) UCL		2.584				95% H-Stat (DL/2) UCL			2.383		
706												
707	Maximum Likelihood Estimate(MLE) Method		N/A				Log ROS Method					
708	MLE yields a negative mean						Mean in Log Scale			0.16		
709							SD in Log Scale			0.932		
710							Mean in Original Scale			1.768		
711							SD in Original Scale			1.776		
712							95% t UCL			2.404		
713							95% Percentile Bootstrap UCL			2.386		
714							95% BCA Bootstrap UCL			2.575		
715							95% H-UCL			2.941		
716												
717	Gamma Distribution Test with Detected Values Only				Data Distribution Test with Detected Values Only							
718	k star (bias corrected)		N/A				Data appear Normal at 5% Significance Level					
719	Theta Star		N/A									
720	nu star		N/A									
721												
722	A-D Test Statistic		N/A				Nonparametric Statistics					
723	5% A-D Critical Value		N/A					Kaplan-Meier (KM) Method				
724	K-S Test Statistic		N/A					Mean			4.217	
725	5% K-S Critical Value		N/A					SD			0.726	
726	Data not Gamma Distributed at 5% Significance Level							SE of Mean			0.185	
727								95% KM (t) UCL			4.536	
728	Assuming Gamma Distribution							95% KM (z) UCL			4.522	

	A	B	C	D	E	F	G	H	I	J	K	L													
729	Gamma ROS Statistics using Extrapolated Data					95% KM (jackknife) UCL				5.432															
730	Minimum				N/A	95% KM (bootstrap t) UCL				4.318															
731	Maximum				N/A	95% KM (BCA) UCL				7.1															
732	Mean				N/A	95% KM (Percentile Bootstrap) UCL				7.1															
733	Median				N/A	95% KM (Chebyshev) UCL				5.026															
734	SD				N/A	97.5% KM (Chebyshev) UCL				5.376															
735	k star				N/A	99% KM (Chebyshev) UCL				6.063															
736	Theta star				N/A																				
737	Nu star				N/A	Potential UCLs to Use																			
738	AppChi2				N/A	95% KM (t) UCL				4.536															
739	95% Gamma Approximate UCL (Use when n >= 40)				N/A	95% KM (Percentile Bootstrap) UCL				7.1															
740	95% Adjusted Gamma UCL (Use when n < 40)				N/A																				
741	Note: DL/2 is not a recommended method.																								
742																									
743	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.																								
744	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).																								
745	For additional insight, the user may want to consult a statistician.																								
746																									
747																									
748	Copper																								
749																									
750	General Statistics																								
751	Number of Valid Data		23		Number of Detected Data		13																		
752	Number of Distinct Detected Data		12		Number of Non-Detect Data		10																		
753							Percent Non-Detects		43.48%																
754																									
755	Raw Statistics				Log-transformed Statistics																				
756	Minimum Detected		2		Minimum Detected		0.693																		
757	Maximum Detected		28		Maximum Detected		3.332																		
758	Mean of Detected		8.346		Mean of Detected		1.705																		
759	SD of Detected		8.708		SD of Detected		0.91																		
760	Minimum Non-Detect		2		Minimum Non-Detect		0.693																		
761	Maximum Non-Detect		2		Maximum Non-Detect		0.693																		
762																									
763																									
764	UCL Statistics																								
765	Normal Distribution Test with Detected Values Only				Lognormal Distribution Test with Detected Values Only																				
766	Shapiro Wilk Test Statistic		0.734		Shapiro Wilk Test Statistic		0.9																		
767	5% Shapiro Wilk Critical Value		0.866		5% Shapiro Wilk Critical Value		0.866																		
768	Data not Normal at 5% Significance Level				Data appear Lognormal at 5% Significance Level																				
769																									
770	Assuming Normal Distribution				Assuming Lognormal Distribution																				
771	DL/2 Substitution Method				DL/2 Substitution Method																				
772	Mean		5.152		Mean		0.964																		
773	SD		7.431		SD		1.095																		
774	95% DL/2 (t) UCL		7.813		95% H-Stat (DL/2) UCL		8.874																		
775																									
776	Maximum Likelihood Estimate(MLE) Method				Log ROS Method																				
777	Mean		1.924		Mean in Log Scale		0.622																		
778	SD		10.52		SD in Log Scale		1.516																		
779	95% MLE (t) UCL		5.692		Mean in Original Scale		4.968																		
780	95% MLE (Tiku) UCL		6.29		SD in Original Scale		7.545																		

	A	B	C	D	E	F	G	H	I	J	K	L
885												
886					The data set for variable Indeno(1,2,3-cd)pyrene was not processed!							
887												
888												
889												
890	Lead											
891												
892						General Statistics						
893					Number of Valid Data	23				Number of Detected Data	14	
894					Number of Distinct Detected Data	9				Number of Non-Detect Data	9	
895										Percent Non-Detects	39.13%	
896												
897					Raw Statistics					Log-transformed Statistics		
898					Minimum Detected	2				Minimum Detected	0.693	
899					Maximum Detected	4.6				Maximum Detected	1.526	
900					Mean of Detected	2.814				Mean of Detected	1.005	
901					SD of Detected	0.783				SD of Detected	0.244	
902					Minimum Non-Detect	2				Minimum Non-Detect	0.693	
903					Maximum Non-Detect	2				Maximum Non-Detect	0.693	
904												
905												
906						UCL Statistics						
907					Normal Distribution Test with Detected Values Only					Lognormal Distribution Test with Detected Values Only		
908					Shapiro Wilk Test Statistic	0.769				Shapiro Wilk Test Statistic	0.837	
909					5% Shapiro Wilk Critical Value	0.874				5% Shapiro Wilk Critical Value	0.874	
910					Data not Normal at 5% Significance Level					Data not Lognormal at 5% Significance Level		
911												
912					Assuming Normal Distribution					Assuming Lognormal Distribution		
913					DL/2 Substitution Method					DL/2 Substitution Method		
914					Mean	2.104				Mean	0.611	
915					SD	1.087				SD	0.535	
916					95% DL/2 (t) UCL	2.494				95% H-Stat (DL/2) UCL	2.674	
917												
918					Maximum Likelihood Estimate(MLE) Method					Log ROS Method		
919					Mean	2.199				Mean in Log Scale	0.762	
920					SD	1.035				SD in Log Scale	0.379	
921					95% MLE (t) UCL	2.57				Mean in Original Scale	2.296	
922					95% MLE (Tiku) UCL	2.613				SD in Original Scale	0.908	
923										95% t UCL	2.621	
924										95% Percentile Bootstrap UCL	2.604	
925										95% BCA Bootstrap UCL	2.649	
926										95% H UCL	2.678	
927												
928					Gamma Distribution Test with Detected Values Only					Data Distribution Test with Detected Values Only		
929					k star (bias corrected)	13.2				Data do not follow a Discernable Distribution (0.05)		
930					Theta Star	0.213						
931					nu star	369.7						
932												
933					A-D Test Statistic	1.172				Nonparametric Statistics		
934					5% A-D Critical Value	0.734				Kaplan-Meier (KM) Method		
935					K-S Test Statistic	0.734				Mean	2.496	
936					5% K-S Critical Value	0.228				SD	0.71	

	A	B	C	D	E	F	G	H	I	J	K	L			
937	Data not Gamma Distributed at 5% Significance Level						SE of Mean				0.154				
938							95% KM (t) UCL				2.76				
939	Assuming Gamma Distribution						95% KM (z) UCL				2.749				
940	Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL				2.73				
941						Minimum	0.000001	95% KM (bootstrap t) UCL				2.916			
942						Maximum	4.6	95% KM (BCA) UCL				2.917			
943						Mean	1.868	95% KM (Percentile Bootstrap) UCL				2.817			
944						Median	2.3	95% KM (Chebyshev) UCL				3.166			
945						SD	1.382	97.5% KM (Chebyshev) UCL				3.456			
946						k star	0.267	99% KM (Chebyshev) UCL				4.025			
947						Theta star	7								
948						Nu star	12.28	Potential UCLs to Use							
949						AppChi2	5.41	95% KM (BCA) UCL				2.917			
950	95% Gamma Approximate UCL (Use when n >= 40)						4.24								
951	95% Adjusted Gamma UCL (Use when n < 40)						4.513								
952	Note: DL/2 is not a recommended method.														
953															
954	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.														
955	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).														
956	For additional insight, the user may want to consult a statistician.														
957															
958															
959	Manganese														
960															
961	General Statistics														
962	Number of Valid Observations				23		Number of Distinct Observations			23					
963															
964	Raw Statistics					Log-transformed Statistics									
965						Minimum	2.3	Minimum of Log Data			0.833				
966						Maximum	3700	Maximum of Log Data			8.216				
967						Mean	969.4	Mean of log Data			5.666				
968						Geometric Mean	289	SD of log Data			2.129				
969						Median	680								
970						SD	1108								
971						Std. Error of Mean	231								
972						Coefficient of Variation	1.143								
973						Skewness	1.205								
974															
975	Relevant UCL Statistics														
976	Normal Distribution Test					Lognormal Distribution Test									
977						Shapiro Wilk Test Statistic	0.825	Shapiro Wilk Test Statistic			0.907				
978						Shapiro Wilk Critical Value	0.914	Shapiro Wilk Critical Value			0.914				
979	Data not Normal at 5% Significance Level					Data not Lognormal at 5% Significance Level									
980															
981	Assuming Normal Distribution					Assuming Lognormal Distribution									
982						95% Student's-t UCL	1366	95% H-UCL			19305				
983	95% UCLs (Adjusted for Skewness)					95% Chebyshev (MVUE) UCL									
984						95% Adjusted-CLT UCL (Chen-1995)	1411	97.5% Chebyshev (MVUE) UCL			9757				
985						95% Modified-t UCL (Johnson-1978)	1376	99% Chebyshev (MVUE) UCL			14272				
986															
987	Gamma Distribution Test					Data Distribution									
988						k star (bias corrected)	0.482	Data appear Gamma Distributed at 5% Significance Level							

	A	B	C	D	E	F	G	H	I	J	K	L
989					Theta Star	2009						
990					MLE of Mean	969.4						
991					MLE of Standard Deviation	1396						
992					nu star	22.19						
993					Approximate Chi Square Value (.05)	12.48						Nonparametric Statistics
994					Adjusted Level of Significance	0.0389					95% CLT UCL	1349
995					Adjusted Chi Square Value	11.95					95% Jackknife UCL	1366
996											95% Standard Bootstrap UCL	1345
997					Anderson-Darling Test Statistic	0.347					95% Bootstrap-t UCL	1483
998					Anderson-Darling 5% Critical Value	0.803					95% Hall's Bootstrap UCL	1398
999					Kolmogorov-Smirnov Test Statistic	0.114					95% Percentile Bootstrap UCL	1372
1000					Kolmogorov-Smirnov 5% Critical Value	0.192					95% BCA Bootstrap UCL	1437
1001					Data appear Gamma Distributed at 5% Significance Level						95% Chebyshev(Mean, Sd) UCL	1976
1002											97.5% Chebyshev(Mean, Sd) UCL	2412
1003					Assuming Gamma Distribution						99% Chebyshev(Mean, Sd) UCL	3267
1004					95% Approximate Gamma UCL (Use when n >= 40)	1723						
1005					95% Adjusted Gamma UCL (Use when n < 40)	1799						
1006												
1007					Potential UCL to Use						Use 95% Approximate Gamma UCL	1723
1008												
1009					Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.							
1010					These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)							
1011					and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.							
1012												
1013												
1014	Mercury											
1015												
1016					General Statistics							
1017					Number of Valid Data	23					Number of Detected Data	4
1018					Number of Distinct Detected Data	4					Number of Non-Detect Data	19
1019											Percent Non-Detects	82.61%
1020												
1021					Raw Statistics						Log-transformed Statistics	
1022					Minimum Detected	0.074					Minimum Detected	-2.604
1023					Maximum Detected	1.5					Maximum Detected	0.405
1024					Mean of Detected	0.489					Mean of Detected	-1.386
1025					SD of Detected	0.677					SD of Detected	1.279
1026					Minimum Non-Detect	0.07					Minimum Non-Detect	-2.659
1027					Maximum Non-Detect	0.07					Maximum Non-Detect	-2.659
1028												
1029												
1030					Warning: There are only 4 Distinct Detected Values in this data							
1031					Note: It should be noted that even though bootstrap may be performed on this data set							
1032					the resulting calculations may not be reliable enough to draw conclusions							
1033												
1034					It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.							
1035												
1036												
1037					UCL Statistics							
1038					Normal Distribution Test with Detected Values Only						Lognormal Distribution Test with Detected Values Only	
1039					Shapiro Wilk Test Statistic	0.713					Shapiro Wilk Test Statistic	0.917
1040					5% Shapiro Wilk Critical Value	0.748					5% Shapiro Wilk Critical Value	0.748

	A	B	C	D	E	F	G	H	I	J	K	L
1041	Data not Normal at 5% Significance Level						Data appear Lognormal at 5% Significance Level					
1042	Assuming Normal Distribution						Assuming Lognormal Distribution					
1043	DL/2 Substitution Method						DL/2 Substitution Method					
1044	Mean						Mean					
1045	SD						SD					
1046	95% DL/2 (t) UCL						95% H-Stat (DL/2) UCL					
1047	0.223						0.116					
1048	Maximum Likelihood Estimate(MLE) Method						Log ROS Method					
1049	MLE yields a negative mean						Mean in Log Scale					
1050							-6.935					
1051							SD in Log Scale					
1052							Mean in Original Scale					
1053							SD in Original Scale					
1054							0.313					
1055							95% t UCL					
1056							0.199					
1057							95% Percentile Bootstrap UCL					
1058							0.215					
1059							95% BCA Bootstrap UCL					
1060							0.287					
1061							95% H-UCL					
1062							194.5					
1063												
1064	Gamma Distribution Test with Detected Values Only						Data Distribution Test with Detected Values Only					
1065	k star (bias corrected)						Data appear Gamma Distributed at 5% Significance Level					
1066	Theta Star											
1067	nu star											
1068	0.386											
1069	A-D Test Statistic						Nonparametric Statistics					
1070	5% A-D Critical Value						Kaplan-Meier (KM) Method					
1071	1.267											
1072	nu star						Mean					
1073	3.085						0.146					
1074	K-S Test Statistic						SD					
1075	0.49						0.291					
1076	5% K-S Critical Value											
1077	Data appear Gamma Distributed at 5% Significance Level						SE of Mean					
1078	0.668						0.07					
1079	95% KM (t) UCL											
1080	0.266											
1081	Assuming Gamma Distribution						95% KM (z) UCL					
1082	95% KM (jackknife) UCL						0.241					
1083	95% KM (bootstrap t) UCL						0.678					
1084	95% KM (BCA) UCL						0.398					
1085	95% KM (Percentile Bootstrap) UCL						0.34					
1086	95% KM (Chebyshev) UCL						0.451					
1087	97.5% KM (Chebyshev) UCL						0.583					
1088	99% KM (Chebyshev) UCL						0.842					
1089	Potential UCLs to Use											
1090	Nu star						Note: DL/2 is not a recommended method.					
1091	AppChi2											
1092	0.4917						Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.					
1093	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
1094	For additional insight, the user may want to consult a statistician.											
1095	Methane											
1096	General Statistics											

	A	B	C	D	E	F	G	H	I	J	K	L				
1093	Number of Valid Data			39	Number of Detected Data			32								
1094	Number of Distinct Detected Data			30	Number of Non-Detect Data			7								
1095					Percent Non-Detects			17.95%								
1096																
1097	Raw Statistics				Log-transformed Statistics											
1098	Minimum Detected			0.079	Minimum Detected			-2.538								
1099	Maximum Detected			4000	Maximum Detected			8.294								
1100	Mean of Detected			230.5	Mean of Detected			1.791								
1101	SD of Detected			826.8	SD of Detected			2.604								
1102	Minimum Non-Detect			0.074	Minimum Non-Detect			-2.604								
1103	Maximum Non-Detect			0.074	Maximum Non-Detect			-2.604								
1104																
1105																
1106	UCL Statistics															
1107	Normal Distribution Test with Detected Values Only				Lognormal Distribution Test with Detected Values Only											
1108	Shapiro Wilk Test Statistic			0.313	Shapiro Wilk Test Statistic			0.937								
1109	5% Shapiro Wilk Critical Value			0.93	5% Shapiro Wilk Critical Value			0.93								
1110	Data not Normal at 5% Significance Level				Data appear Lognormal at 5% Significance Level											
1111																
1112	Assuming Normal Distribution				Assuming Lognormal Distribution											
1113	DL/2 Substitution Method				DL/2 Substitution Method											
1114	Mean			189.2	Mean			0.878								
1115	SD			752.1	SD			3.073								
1116	95% DL/2 (t) UCL			392.2	95% H-Stat (DL/2) UCL			4033								
1117																
1118	Maximum Likelihood Estimate(MLE) Method				Log ROS Method											
1119	Mean			74.21	Mean in Log Scale			0.723								
1120	SD			835.6	SD in Log Scale			3.334								
1121	95% MLE (t) UCL			299.8	Mean in Original Scale			189.2								
1122	95% MLE (Tiku) UCL			290.8	SD in Original Scale			752.1								
1123					95% t UCL			392.2								
1124					95% Percentile Bootstrap UCL			407.1								
1125					95% BCA Bootstrap UCL			519.5								
1126					95% H UCL			12565								
1127																
1128	Gamma Distribution Test with Detected Values Only				Data Distribution Test with Detected Values Only											
1129	k star (bias corrected)			0.203	Data appear Lognormal at 5% Significance Level											
1130	Theta Star			1134												
1131	nu star			13.02												
1132																
1133	A-D Test Statistic			4.15	Nonparametric Statistics											
1134	5% A-D Critical Value			0.898	Kaplan-Meier (KM) Method											
1135	K-S Test Statistic			0.898	Mean			189.2								
1136	5% K-S Critical Value			0.172	SD			742.4								
1137	Data not Gamma Distributed at 5% Significance Level				SE of Mean			120.8								
1138					95% KM (t) UCL			392.8								
1139	Assuming Gamma Distribution				95% KM (z) UCL			387.8								
1140	Gamma ROS Statistics using Extrapolated Data				95% KM (jackknife) UCL			392.2								
1141	Minimum			0.000001	95% KM (bootstrap t) UCL			2781								
1142	Maximum			4000	95% KM (BCA) UCL			395.3								
1143	Mean			189.2	95% KM (Percentile Bootstrap) UCL			393.7								
1144	Median			3.5	95% KM (Chebyshev) UCL			715.7								

	A	B	C	D	E	F	G	H	I	J	K	L
1145					SD	752.1			97.5% KM (Chebyshev) UCL		943.5	
1146					k star	0.133			99% KM (Chebyshev) UCL		1391	
1147					Theta star	1418						
1148					Nu star	10.4			Potential UCLs to Use			
1149					AppChi2	4.196			99% KM (Chebyshev) UCL		1391	
1150					95% Gamma Approximate UCL (Use when n >= 40)	469						
1151					95% Adjusted Gamma UCL (Use when n < 40)	487						
1152	Note: DL/2 is not a recommended method.											
1153												
1154	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1155	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
1156	For additional insight, the user may want to consult a statistician.											
1157												
1158												
1159	Methyl tert-butyl ether											
1160												
1161	General Statistics											
1162	Number of Valid Data		39			Number of Detected Data		11				
1163	Number of Distinct Detected Data		11			Number of Non-Detect Data		28				
1164						Percent Non-Detects		71.79%				
1165												
1166	Raw Statistics				Log-transformed Statistics							
1167	Minimum Detected		1			Minimum Detected		0				
1168	Maximum Detected		27			Maximum Detected		3.296				
1169	Mean of Detected		6.855			Mean of Detected		1.436				
1170	SD of Detected		7.588			SD of Detected		1.043				
1171	Minimum Non-Detect		0.74			Minimum Non-Detect		-0.301				
1172	Maximum Non-Detect		1.8			Maximum Non-Detect		0.588				
1173												
1174	Note: Data have multiple DLs - Use of KM Method is recommended					Number treated as Non-Detect		31				
1175	For all methods (except KM, DL/2, and ROS Methods),					Number treated as Detected		8				
1176	Observations < Largest ND are treated as NDs					Single DL Non-Detect Percentage		79.49%				
1177												
1178	UCL Statistics											
1179	Normal Distribution Test with Detected Values Only				Lognormal Distribution Test with Detected Values Only							
1180	Shapiro Wilk Test Statistic		0.749			Shapiro Wilk Test Statistic		0.946				
1181	5% Shapiro Wilk Critical Value		0.85			5% Shapiro Wilk Critical Value		0.85				
1182	Data not Normal at 5% Significance Level				Data appear Lognormal at 5% Significance Level							
1183												
1184	Assuming Normal Distribution				Assuming Lognormal Distribution							
1185	DL/2 Substitution Method					DL/2 Substitution Method						
1186	Mean		2.321			Mean		-0.104				
1187	SD		4.846			SD		1.17				
1188	95% DL/2 (t) UCL		3.629			95% H-Stat (DL/2) UCL		2.93				
1189												
1190	Maximum Likelihood Estimate(MLE) Method		N/A			Log ROS Method						
1191	MLE yields a negative mean					Mean in Log Scale		-1.146				
1192						SD in Log Scale		2.1				
1193						Mean in Original Scale		2.109				
1194						SD in Original Scale		4.928				
1195						95% t UCL		3.439				
1196						95% Percentile Bootstrap UCL		3.493				

	A	B	C	D	E	F	G	H	I	J	K	L
1197											95% BCA Bootstrap UCL	3.935
1198											95% H-UCL	10.94
1199												
1200	Gamma Distribution Test with Detected Values Only					Data Distribution Test with Detected Values Only						
1201				k star (bias corrected)	0.904	Data appear Gamma Distributed at 5% Significance Level						
1202				Theta Star	7.579							
1203				nu star	19.9							
1204												
1205				A-D Test Statistic	0.414	Nonparametric Statistics						
1206				5% A-D Critical Value	0.749	Kaplan-Meier (KM) Method						
1207				K-S Test Statistic	0.749					Mean	2.663	
1208				5% K-S Critical Value	0.262					SD	4.655	
1209	Data appear Gamma Distributed at 5% Significance Level									SE of Mean	0.782	
1210										95% KM (t) UCL	3.981	
1211	Assuming Gamma Distribution									95% KM (z) UCL	3.949	
1212	Gamma ROS Statistics using Extrapolated Data									95% KM (jackknife) UCL	3.767	
1213				Minimum	0.000001					95% KM (bootstrap t) UCL	5.305	
1214				Maximum	27					95% KM (BCA) UCL	4.825	
1215				Mean	1.933					95% KM (Percentile Bootstrap) UCL	4.194	
1216				Median	0.000001					95% KM (Chebyshev) UCL	6.071	
1217				SD	4.992					97.5% KM (Chebyshev) UCL	7.546	
1218				k star	0.0926					99% KM (Chebyshev) UCL	10.44	
1219				Theta star	20.88							
1220				Nu star	7.222	Potential UCLs to Use						
1221				AppChi2	2.293					95% KM (t) UCL	3.981	
1222	95% Gamma Approximate UCL (Use when n >= 40)					6.089						
1223	95% Adjusted Gamma UCL (Use when n < 40)					6.39						
1224	Note: DL/2 is not a recommended method.											
1225												
1226	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1227	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
1228	For additional insight, the user may want to consult a statistician.											
1229												
1230												
1231	m-Xylene & p-Xylene											
1232												
1233	General Statistics											
1234	Number of Valid Data			39		Number of Detected Data			1			
1235	Number of Distinct Detected Data			1		Number of Non-Detect Data			38			
1236									Percent Non-Detects	97.44%		
1237												
1238	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!											
1239	It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).											
1240												
1241	The data set for variable m-Xylene & p-Xylene was not processed!											
1242												
1243												
1244												
1245	Naphthalene											
1246												
1247	General Statistics											
1248	Number of Valid Data			39		Number of Detected Data			4			

	A	B	C	D	E	F	G	H	I	J	K	L					
1249	Number of Distinct Detected Data					4	Number of Non-Detect Data					35					
1250							Percent Non-Detects					89.74%					
1251																	
1252	Raw Statistics					Log-transformed Statistics											
1253	Minimum Detected					0.18	Minimum Detected					-1.715					
1254	Maximum Detected					29	Maximum Detected					3.367					
1255	Mean of Detected					8.645	Mean of Detected					0.519					
1256	SD of Detected					13.76	SD of Detected					2.402					
1257	Minimum Non-Detect					0.17	Minimum Non-Detect					-1.772					
1258	Maximum Non-Detect					1.8	Maximum Non-Detect					0.588					
1259																	
1260	Note: Data have multiple DLs - Use of KM Method is recommended						Number treated as Non-Detect					37					
1261	For all methods (except KM, DL/2, and ROS Methods),						Number treated as Detected					2					
1262	Observations < Largest ND are treated as NDs						Single DL Non-Detect Percentage					94.87%					
1263																	
1264	Warning: There are only 4 Distinct Detected Values in this data																
1265	Note: It should be noted that even though bootstrap may be performed on this data set																
1266	the resulting calculations may not be reliable enough to draw conclusions																
1267																	
1268	It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.																
1269																	
1270																	
1271	UCL Statistics																
1272	Normal Distribution Test with Detected Values Only					Lognormal Distribution Test with Detected Values Only											
1273	Shapiro Wilk Test Statistic					0.748	Shapiro Wilk Test Statistic					0.91					
1274	5% Shapiro Wilk Critical Value					0.748	5% Shapiro Wilk Critical Value					0.748					
1275	Data not Normal at 5% Significance Level					Data appear Lognormal at 5% Significance Level											
1276																	
1277	Assuming Normal Distribution					Assuming Lognormal Distribution											
1278	DL/2 Substitution Method						DL/2 Substitution Method										
1279	Mean					1.243	Mean					-1.205					
1280	SD					4.635	SD					1.342					
1281	95% DL/2 (t) UCL					2.494	95% H-Stat (DL/2) UCL					1.365					
1282																	
1283	Maximum Likelihood Estimate(MLE) Method					N/A	Log ROS Method										
1284	MLE method failed to converge properly						Mean in Log Scale					-8.52					
1285																	
1286							SD in Log Scale					4.722					
1287							Mean in Original Scale					0.89					
1288							SD in Original Scale					4.691					
1289							95% t UCL					2.157					
1290							95% Percentile Bootstrap UCL					2.364					
1291							95% BCA Bootstrap UCL					3.374					
1292																	
1293	Gamma Distribution Test with Detected Values Only					Data Distribution Test with Detected Values Only											
1294	k star (bias corrected)					0.267	Data appear Gamma Distributed at 5% Significance Level										
1295	Theta Star					32.37											
1296	nu star					2.137											
1297																	
1298	A-D Test Statistic					0.359	Nonparametric Statistics										
1299	5% A-D Critical Value					0.692	Kaplan-Meier (KM) Method										
1300	K-S Test Statistic					0.692	Mean					1.051					

	A	B	C	D	E	F	G	H	I	J	K	L	
1353	Assuming Normal Distribution						Assuming Lognormal Distribution						
1354	DL/2 Substitution Method						DL/2 Substitution Method						
1355				Mean	8.504					Mean	0.903		
1356				SD	25.05					SD	1.136		
1357				95% DL/2 (t) UCL	17.47				95% H-Stat (DL/2) UCL		9.068		
1358													
1359	Maximum Likelihood Estimate(MLE) Method						N/A	Log ROS Method					
1360	MLE yields a negative mean							Mean in Log Scale					
1361								SD in Log Scale					
1362								Mean in Original Scale					
1363								SD in Original Scale					
1364								95% t UCL					
1365								95% Percentile Bootstrap UCL					
1366								95% BCA Bootstrap UCL					
1367								95% H-UCL					
1368													
1369	Gamma Distribution Test with Detected Values Only						Data Distribution Test with Detected Values Only						
1370	k star (bias corrected)						0.426	Data appear Gamma Distributed at 5% Significance Level					
1371	Theta Star						79.22						
1372	nu star						4.256						
1373													
1374	A-D Test Statistic						0.451	Nonparametric Statistics					
1375	5% A-D Critical Value						0.699	Kaplan-Meier (KM) Method					
1376	K-S Test Statistic						0.699	Mean					
1377	5% K-S Critical Value						0.367	SD					
1378	Data appear Gamma Distributed at 5% Significance Level							SE of Mean					
1379								95% KM (t) UCL					
1380	Assuming Gamma Distribution							95% KM (z) UCL					
1381	Gamma ROS Statistics using Extrapolated Data							95% KM (jackknife) UCL					
1382	Minimum						0.000001	95% KM (bootstrap t) UCL					
1383	Maximum						120	95% KM (BCA) UCL					
1384	Mean						7.33	95% KM (Percentile Bootstrap) UCL					
1385	Median						0.000001	95% KM (Chebyshev) UCL					
1386	SD						25.4	97.5% KM (Chebyshev) UCL					
1387	k star						0.0893	99% KM (Chebyshev) UCL					
1388	Theta star						82.09						
1389	Nu star						4.108	Potential UCLs to Use					
1390	AppChi2						0.765	95% KM (t) UCL					
1391	95% Gamma Approximate UCL (Use when n >= 40)						39.38						
1392	95% Adjusted Gamma UCL (Use when n < 40)						44.95						
1393	Note: DL/2 is not a recommended method.												
1394													
1395	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.												
1396	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).												
1397	For additional insight, the user may want to consult a statistician.												
1398													
1399													
1400	Nitrobenzene												
1401													
1402	General Statistics												
1403	Number of Valid Data						23	Number of Detected Data					
1404	Number of Distinct Detected Data						0	Number of Non-Detect Data					

	A	B	C	D	E	F	G	H	I	J	K	L
1457												
1458												
1459												
1460	Selenium											
1461												
1462							General Statistics					
1463					Number of Valid Data	23				Number of Detected Data	1	
1464					Number of Distinct Detected Data	1				Number of Non-Detect Data	22	
1465										Percent Non-Detects	95.65%	
1466												
1467							Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!					
1468							It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).					
1469												
1470							The data set for variable Selenium was not processed!					
1471												
1472												
1473												
1474	Silver											
1475												
1476							General Statistics					
1477					Number of Valid Data	23				Number of Detected Data	0	
1478					Number of Distinct Detected Data	0				Number of Non-Detect Data	23	
1479										Percent Non-Detects	100.00%	
1480												
1481							Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!					
1482							Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!					
1483							The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).					
1484												
1485							The data set for variable Silver was not processed!					
1486												
1487												
1488												
1489	Styrene											
1490												
1491							General Statistics					
1492					Number of Valid Data	23				Number of Detected Data	0	
1493					Number of Distinct Detected Data	0				Number of Non-Detect Data	23	
1494										Percent Non-Detects	100.00%	
1495												
1496							Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!					
1497							Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!					
1498							The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).					
1499												
1500							The data set for variable Styrene was not processed!					
1501												
1502												
1503												
1504	Sulfolane											
1505												
1506							General Statistics					
1507					Number of Valid Data	39				Number of Detected Data	26	
1508					Number of Distinct Detected Data	24				Number of Non-Detect Data	13	

	A	B	C	D	E	F	G	H	I	J	K	L
1509											Percent Non-Detects	33.33%
1510												
1511	Raw Statistics						Log-transformed Statistics					
1512	Minimum Detected		2.4				Minimum Detected		0.875			
1513	Maximum Detected		2800				Maximum Detected		7.937			
1514	Mean of Detected		648.4				Mean of Detected		5.125			
1515	SD of Detected		772.5				SD of Detected		2.166			
1516	Minimum Non-Detect		0.55				Minimum Non-Detect		-0.598			
1517	Maximum Non-Detect		0.61				Maximum Non-Detect		-0.494			
1518												
1519	Note: Data have multiple DLs - Use of KM Method is recommended						Number treated as Non-Detect		13			
1520	For all methods (except KM, DL/2, and ROS Methods),						Number treated as Detected		26			
1521	Observations < Largest ND are treated as NDs						Single DL Non-Detect Percentage		33.33%			
1522												
1523	UCL Statistics											
1524	Normal Distribution Test with Detected Values Only						Lognormal Distribution Test with Detected Values Only					
1525	Shapiro Wilk Test Statistic		0.799				Shapiro Wilk Test Statistic		0.889			
1526	5% Shapiro Wilk Critical Value		0.92				5% Shapiro Wilk Critical Value		0.92			
1527	Data not Normal at 5% Significance Level						Data not Lognormal at 5% Significance Level					
1528												
1529	Assuming Normal Distribution						Assuming Lognormal Distribution					
1530	DL/2 Substitution Method						DL/2 Substitution Method					
1531	Mean		432.4				Mean		3.003			
1532	SD		698.9				SD		3.512			
1533	95% DL/2 (t) UCL		621				95% H-Stat (DL/2) UCL		313684			
1534												
1535	Maximum Likelihood Estimate(MLE) Method						Log ROS Method					
1536	Mean		209.8				Mean in Log Scale		3.508			
1537	SD		926.3				SD in Log Scale		2.967			
1538	95% MLE (t) UCL		459.9				Mean in Original Scale		432.9			
1539	95% MLE (Tiku) UCL		477.1				SD in Original Scale		698.5			
1540							95% t UCL		621.5			
1541							95% Percentile Bootstrap UCL		620.4			
1542							95% BCA Bootstrap UCL		654.4			
1543							95% H UCL		34139			
1544												
1545	Gamma Distribution Test with Detected Values Only						Data Distribution Test with Detected Values Only					
1546	k star (bias corrected)		0.445				Data do not follow a Discernable Distribution (0.05)					
1547	Theta Star		1456									
1548	nu star		23.16									
1549												
1550	A-D Test Statistic		0.954				Nonparametric Statistics					
1551	5% A-D Critical Value		0.814				Kaplan-Meier (KM) Method					
1552	K-S Test Statistic		0.814					Mean		433.1		
1553	5% K-S Critical Value		0.182					SD		689.4		
1554	Data not Gamma Distributed at 5% Significance Level							SE of Mean		112.6		
1555								95% KM (t) UCL		622.9		
1556	Assuming Gamma Distribution							95% KM (z) UCL		618.2		
1557	Gamma ROS Statistics using Extrapolated Data							95% KM (jackknife) UCL		621		
1558	Minimum		0.000001					95% KM (bootstrap t) UCL		687.3		
1559	Maximum		2800					95% KM (BCA) UCL		636		
1560	Mean		432.3					95% KM (Percentile Bootstrap) UCL		615.4		

	A	B	C	D	E	F	G	H	I	J	K	L
1561					Median	24			95% KM (Chebyshev) UCL		923.8	
1562					SD	699			97.5% KM (Chebyshev) UCL		1136	
1563					k star	0.119			99% KM (Chebyshev) UCL		1553	
1564					Theta star	3630						
1565					Nu star	9.288			Potential UCLs to Use			
1566					AppChi2	3.502			99% KM (Chebyshev) UCL		1553	
1567					95% Gamma Approximate UCL (Use when n >= 40)	1147						
1568					95% Adjusted Gamma UCL (Use when n < 40)	1194						
1569	Note: DL/2 is not a recommended method.											
1570												
1571	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1572	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
1573	For additional insight, the user may want to consult a statistician.											
1574												
1575												
1576	Tetrachloroethene											
1577												
1578					General Statistics							
1579					Number of Valid Data	23			Number of Detected Data		2	
1580					Number of Distinct Detected Data	2			Number of Non-Detect Data		21	
1581									Percent Non-Detects		91.30%	
1582												
1583					Raw Statistics				Log-transformed Statistics			
1584					Minimum Detected	1.3			Minimum Detected		0.262	
1585					Maximum Detected	1.5			Maximum Detected		0.405	
1586					Mean of Detected	1.4			Mean of Detected		0.334	
1587					SD of Detected	0.141			SD of Detected		0.101	
1588					Minimum Non-Detect	0.58			Minimum Non-Detect		-0.545	
1589					Maximum Non-Detect	0.58			Maximum Non-Detect		-0.545	
1590												
1591												
1592					Warning: Data set has only 2 Distinct Detected Values.							
1593					This may not be adequate enough to compute meaningful and reliable test statistics and estimates.							
1594					The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).							
1595												
1596					Unless Data Quality Objectives (DQOs) have been met, it is suggested to collect additional observations.							
1597												
1598					The number of detected data may not be adequate enough to perform GOF tests, bootstrap, and ROS methods.							
1599					Those methods will return a 'N/A' value on your output display!							
1600												
1601					It is necessary to have 4 or more Distinct Values for bootstrap methods.							
1602					However, results obtained using 4 to 9 distinct values may not be reliable.							
1603					It is recommended to have 10 to 15 or more observations for accurate and meaningful results and estimates.							
1604												
1605												
1606					UCL Statistics							
1607					Normal Distribution Test with Detected Values Only				Lognormal Distribution Test with Detected Values Only			
1608					Shapiro Wilk Test Statistic	N/A			Shapiro Wilk Test Statistic		N/A	
1609					5% Shapiro Wilk Critical Value	N/A			5% Shapiro Wilk Critical Value		N/A	
1610					Data not Normal at 5% Significance Level				Data not Lognormal at 5% Significance Level			
1611												
1612					Assuming Normal Distribution				Assuming Lognormal Distribution			

	A	B	C	D	E	F	G	H	I	J	K	L				
1613	DL/2 Substitution Method					DL/2 Substitution Method										
1614	Mean				0.387	Mean				-1.101						
1615	SD				0.321	SD				0.453						
1616	95% DL/2 (t) UCL				0.502	95% H-Stat (DL/2) UCL				0.444						
1617																
1618	Maximum Likelihood Estimate(MLE) Method				N/A	Log ROS Method										
1619	MLE method failed to converge properly					Mean in Log Scale				N/A						
1620						SD in Log Scale				N/A						
1621						Mean in Original Scale				N/A						
1622						SD in Original Scale				N/A						
1623						95% t UCL				N/A						
1624						95% Percentile Bootstrap UCL				N/A						
1625						95% BCA Bootstrap UCL				N/A						
1626						95% H-UCL				N/A						
1627																
1628	Gamma Distribution Test with Detected Values Only					Data Distribution Test with Detected Values Only										
1629	k star (bias corrected)				N/A	Data do not follow a Discernable Distribution (0.05)										
1630	Theta Star				N/A											
1631	nu star				N/A											
1632																
1633	A-D Test Statistic				N/A	Nonparametric Statistics										
1634	5% A-D Critical Value				N/A	Kaplan-Meier (KM) Method										
1635	K-S Test Statistic				N/A	Mean				1.309						
1636	5% K-S Critical Value				N/A	SD				0.0408						
1637	Data not Gamma Distributed at 5% Significance Level					SE of Mean				0.012						
1638						95% KM (t) UCL				1.329						
1639	Assuming Gamma Distribution					95% KM (z) UCL				1.328						
1640	Gamma ROS Statistics using Extrapolated Data					95% KM (jackknife) UCL				N/A						
1641	Minimum				N/A	95% KM (bootstrap t) UCL				N/A						
1642	Maximum				N/A	95% KM (BCA) UCL				N/A						
1643	Mean				N/A	95% KM (Percentile Bootstrap) UCL				N/A						
1644	Median				N/A	95% KM (Chebyshev) UCL				1.361						
1645	SD				N/A	97.5% KM (Chebyshev) UCL				1.384						
1646	k star				N/A	99% KM (Chebyshev) UCL				1.428						
1647	Theta star				N/A											
1648	Nu star				N/A	Potential UCLs to Use										
1649	AppChi2				N/A	95% KM (t) UCL				1.329						
1650	95% Gamma Approximate UCL (Use when n >= 40)				N/A	95% KM (% Bootstrap) UCL				N/A						
1651	95% Adjusted Gamma UCL (Use when n < 40)				N/A											
1652	Note: DL/2 is not a recommended method.															
1653																
1654	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.															
1655	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).															
1656	For additional insight, the user may want to consult a statistician.															
1657																
1658																
1659	Toluene															
1660																
1661	General Statistics															
1662	Number of Valid Data				39	Number of Detected Data				0						
1663	Number of Distinct Detected Data				0	Number of Non-Detect Data				39						
1664						Percent Non-Detects				100.00%						

	A	B	C	D	E	F	G	H	I	J	K	L						
1717	A-D Test Statistic					0.552	Nonparametric Statistics											
1718	5% A-D Critical Value					0.753	Kaplan-Meier (KM) Method											
1719	K-S Test Statistic					0.753	Mean											
1720	5% K-S Critical Value					0.212	SD											
1721	Data appear Gamma Distributed at 5% Significance Level						SE of Mean											
1722							95% KM (t) UCL											
1723	Assuming Gamma Distribution						95% KM (z) UCL											
1724	Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL											
1725	Minimum					0.000001	95% KM (bootstrap t) UCL											
1726	Maximum					58	95% KM (BCA) UCL											
1727	Mean					9.787	95% KM (Percentile Bootstrap) UCL											
1728	Median					6	95% KM (Chebyshev) UCL											
1729	SD					12.83	97.5% KM (Chebyshev) UCL											
1730	k star					0.183	99% KM (Chebyshev) UCL											
1731	Theta star					53.34												
1732	Nu star					8.441	Potential UCLs to Use											
1733	AppChi2					2.993	95% KM (Percentile Bootstrap) UCL											
1734	95% Gamma Approximate UCL (Use when n >= 40)					27.6												
1735	95% Adjusted Gamma UCL (Use when n < 40)					29.91												
1736	Note: DL/2 is not a recommended method.																	
1737																		
1738	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.																	
1739	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).																	
1740	For additional insight, the user may want to consult a statistician.																	
1741																		
1742																		
1743	Zinc																	
1744																		
1745	General Statistics																	
1746	Number of Valid Data					23	Number of Detected Data											
1747	Number of Distinct Detected Data					6	Number of Non-Detect Data											
1748							Percent Non-Detects											
1749																		
1750	Raw Statistics						Log-transformed Statistics											
1751	Minimum Detected					8.9	Minimum Detected											
1752	Maximum Detected					25	Maximum Detected											
1753	Mean of Detected					14.08	Mean of Detected											
1754	SD of Detected					6.743	SD of Detected											
1755	Minimum Non-Detect					8	Minimum Non-Detect											
1756	Maximum Non-Detect					8	Maximum Non-Detect											
1757																		
1758																		
1759	Warning: There are only 6 Detected Values in this data																	
1760	Note: It should be noted that even though bootstrap may be performed on this data set																	
1761	the resulting calculations may not be reliable enough to draw conclusions																	
1762																		
1763	It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.																	
1764																		
1765																		
1766	UCL Statistics																	
1767	Normal Distribution Test with Detected Values Only						Lognormal Distribution Test with Detected Values Only											
1768	Shapiro Wilk Test Statistic					0.785	Shapiro Wilk Test Statistic											

	A	B	C	D	E	F	G	H	I	J	K	L
1769					5% Shapiro Wilk Critical Value	0.788				5% Shapiro Wilk Critical Value		0.788
1770	Data not Normal at 5% Significance Level						Data appear Lognormal at 5% Significance Level					
1771												
1772	Assuming Normal Distribution						Assuming Lognormal Distribution					
1773												
1774	DL/2 Substitution Method						DL/2 Substitution Method					
1775	Mean						Mean					
1776	SD						SD					
1777	5.552						0.566					
1778	95% DL/2 (t) UCL						8.618					
1779	95% H-Stat (DL/2) UCL						8.155					
1780												
1781	Maximum Likelihood Estimate(MLE) Method						Log ROS Method					
1782	Mean						Mean in Log Scale					
1783	SD						1.258					
1784	10.89						SD in Log Scale					
1785	95% MLE (t) UCL						1.021					
1786	4.705						Mean in Original Scale					
1787	95% MLE (Tiku) UCL						5.707					
1788	8.423						SD in Original Scale					
1789							6.191					
1790							95% t UCL					
1791							7.924					
1792							95% Percentile Bootstrap UCL					
1793							7.923					
1794							95% BCA Bootstrap UCL					
1795							8.456					
1796							95% H UCL					
1797							10.33					
1798												
1799	Gamma Distribution Test with Detected Values Only						Data Distribution Test with Detected Values Only					
1800												
1801	k star (bias corrected)						Data Follow Appr. Gamma Distribution at 5% Significance Level					
1802	3.15											
1803	Theta Star											
1804	37.8											
1805												
1806	Nonparametric Statistics											
1807							Kaplan-Meier (KM) Method					
1808	0.692						Mean					
1809	0.698						10.25					
1810	0.698						SD					
1811	0.333						3.881					
1812	Data follow Appr. Gamma Distribution at 5% Significance Level						SE of Mean					
1813	0.887											
1814							95% KM (t) UCL					
1815	11.77											
1816	Assuming Gamma Distribution						95% KM (z) UCL					
1817	11.71											
1818	Gamma ROS Statistics using Extrapolated Data						95% KM (jackknife) UCL					
1819	95% KM (bootstrap t) UCL						11.47					
1820	25						95% KM (BCA) UCL					
1821	3.674						95% KM (Percentile Bootstrap) UCL					
1822	12.37						95% KM (Chebyshev) UCL					
1823	0.000001						95% KM (Chebyshev) UCL					
1824	0.0961						14.12					
1825	7.093						97.5% KM (Chebyshev) UCL					
1826	0.0961						15.79					
1827	38.21						99% KM (Chebyshev) UCL					
1828	19.07											
1829	Nu star						Potential UCLs to Use					
1830	4.422											
1831	0.895						95% KM (t) UCL					
1832	18.15						11.77					
1833	95% Gamma Approximate UCL (Use when n >= 40)											
1834	20.58											
1835	Note: DL/2 is not a recommended method.											
1836												
1837	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
1838	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
1839	For additional insight, the user may want to consult a statistician.											
1840												